

DOCUMENT RESUME

ED 292 205

EA 019 928

AUTHOR Marshall, Jon C.; And Others  
TITLE State Initiatives in Minimum Competency Testing for  
Students. Policy Issue Series, No. 3.  
INSTITUTION Consortium on Educational Policy Studies,  
Bloomington, IN.  
PUB DATE May 87  
NOTE 80p.; This Consortium is funded by the Lilly  
Endowment.  
PUB TYPE Reports - Research/Technical (143) -- Statistical  
Data (110)  
EDRS PRICE MF01/PC04 Plus Postage.  
DESCRIPTORS Educational Diagnosis; Educational Policy; Elementary  
Secondary Education; \*Graduation Requirements; Legal  
Problems; \*Minimum Competency Testing; \*Standardized  
Tests; \*State Legislation; \*State Programs;  
Surveys  
IDENTIFIERS North Carolina State University

ABSTRACT

Minimum competency testing (MCT) programs for students are growing in popularity and being adopted by many states. In order to determine the extent of the MCT movement, researchers at North Carolina State University surveyed state departments of education in all 50 states. In updating these data for 1986-1987, it was found that 64 percent of the 47 responding states had statewide MCT programs. Two thirds of these programs were initiated by state legislatures and most of the rest were initiated by state education agencies. The most frequent grade levels tested were third (57 percent), sixth (43 percent), and eighth and ninth (47 percent each). One third of all states require a statewide MCT as a requirement for graduation, and half of the states implementing MCT programs have modified the basic curriculum on account of test results. Summaries of nine states' testing programs are included in the report, and 10 policy issues are described: state control, student learning, determining the purposes of minimum competency testing, remediation response, curriculum development response, political response, judicial response, costs, technical qualities of MCTs, and effects on instruction. Special sections focus on remediation and legal issues associated with MCT programs, and tables are included. (Author/TE)

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# STATE INITIATIVES IN MINIMUM COMPETENCY TESTING FOR STUDENTS

Policy Issue Series      No. 3      May 1987

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**STATE INITIATIVES IN MINIMUM COMPETENCY  
TESTING FOR STUDENTS**

**Policy Issue Series      No. 3      May 1987**

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## Executive Summary

Minimum competency testing (MCT) programs for students are growing in popularity and being adopted by many states. In order to determine the extent of the MCT movement, researchers at North Carolina State University surveyed state departments of education in all 50 states. In updating this data for 1986-1987, Marshall found that 64% of the responding states (47) had statewide MCT programs.

Two thirds of the programs were initiated by state legislatures and most of the remaining programs were initiated by state education agencies. The most frequent grade levels tested were third (57%), sixth (43%), and eighth and ninth (47% each). Of those states having statewide MCT, 60% (one third of all states) required that the tests be used as a requirement for graduation. Remediation of students failing the test was required by over two thirds of the states that have MCT mandates. Half of the states implementing MCT programs have modified the basic curriculum as a result of test results.

Although a majority of the states have MCT programs, few states define MCT in the same way, a problem that is illustrated in the summaries of nine states' testing programs that are included in this report. Despite discrepancies in definition, most of the MCT programs surveyed contain some or all of the following characteristics.

1. Minimum competency tests use explicit criteria for determining acceptable performance.
2. Schools use minimum competency tests to make decisions about individual students.

3. Minimum competency tests are administered at both elementary and secondary levels for the diagnosis of student deficiencies; students failing the test are provided with remediation.
4. Passing of a minimum competency test is required for a student to receive a high school diploma.
5. Minimum competency tests are administered in the areas of reading, math and writing; however, the definitions of the skills to be tested within these areas vary from fundamental, basic essential skills to life skills.
6. Remediation efforts and procedures differ widely, and the benefits of remediation efforts may differ according to the majority or minority status of the students or the handicapping conditions.
7. Most states develop their own tests. These are multiple choice, objective-referenced, distributed, and scored by state departments of education.

Ten policy issues are described in the report: state control; student learning; determining the purpose(s) of minimum competency testing; remediation response; curriculum development response; political response; judicial response; costs of minimum competency testing; technical qualities of minimum competency tests; and impact of tests on instruction. Special sections focus on remediation and legal issues associated with MCT programs.

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## Foreword

The initial data on state initiatives in minimum competency testing were collected pursuant to a grant from North Carolina State University. Project staff members were Drs. Bettye MacPhail-Wilcox, Robert Serow, Bruce Beezer, Jon Marshall, and Ruie Pritchard. I am grateful to Dr. Robert Serow for his encouragement in my preparation of the initial paper presented at the 1986 annual meeting of the American Research Educational Association and for his contributions to this policy paper.

In addition, I want to thank Dr. Ruie Pritchard who reviewed earlier drafts of this paper and provided me with excellent feedback and to thank Dr. Raymond Taylor who reviewed the final report.

Acknowledgement also is to be given to Ms. Joy Collins who read and critiqued several drafts of the report and to Mr. Georg Gunzenhauser who provided substantive feedback on a preliminary draft.

Because of the support provided by the Consortium on Educational Policy Studies, School of Education, Indiana University, the information in this report has been updated for the 1986-1987 academic year. A special thanks is also made to Martha McCarthy, Consortium Director, for her contribution on legal issues of student minimum competency testing.

Jon C. Marshall

## Section I

### The Student Minimum Competency Movement: An Overview

#### Introduction

There is no clear focus for schooling. Some educators use a holistic approach, others a humanistic one. Some educators stress the arts, while others stress career development. Despite this diversity, there is general agreement that an overriding concern for schools has resurfaced in the 1980s--education should provide students with a basic foundation for achievement to ensure success in school and later life. To this end, some means is needed to assess whether educational systems are meeting the needs of their students.

Using test scores to gauge success, two notable trends in college entrance examination scores have emerged during the past two and one-half decades. The first trend, extending from the early 1960s to the mid 1970s, was marked by declining scores on the Scholastic Aptitude Test (SAT) and the American College Test (ACT). The second trend, starting in 1976, has been associated with the reversal of those declining national test scores.

Review of the standardized test information (College Entrance Examination Board, 1977; Maxey, Wimpy, Ferguson, & Hanson, 1976) suggests that changes made in the SAT and ACT tests could not account for the noted decline in scores. The first period of decline, through the 1960s, was attributed to changing student populations as increased numbers of lower achieving students graduated from high school and took the college entrance

examinations. The second period of decline, through the first half of the 1970s, was attributed to a broader set of social-educational changes including decreases in academic requirements for graduation, increased numbers of elective courses available to students, grade inflation, decreased emphasis on academic standards, and changes in the family structure.

Studies based on data collected by the National Assessment of Educational Progress (Forbes, 1982), by national test companies when renorming standardized tests (Burket & Stewart, 1982), and through statewide test results (Biester & Dusewicz, 1983), reveal that the reasons for changes in test scores have been more complex than those indicated by a review of college entrance examination scores alone. These data have reflected an upward trend in basic skill achievement, particularly at the elementary level. The upward trend in achievement, coupled with the decline in scores on the college entrance examinations, may indicate that education has kept pace with expectations in introducing basic skills, but has fallen short in teaching the applications of these skills.

The declining SAT and ACT scores sparked an interest in examining factors related to school achievement. Early studies (Bryant, Glaser, Hansen, & Kirsch, 1974; Coleman, et al., 1966; Marshall & Powers, 1971) suggested that the primary factors associated with achievement were student demographic variables, including sex, age, race, and socio-economic background. Later studies (Edmonds, 1979; Lightfoot, 1983; Mackenzie, 1983; National Center for Educational Statistics, 1983) have reported

that there are identifiable school and classroom characteristics that are associated with good schools. These characteristics include climate variables, daily attendance, study skills, time-on-task, number of required courses, teacher inservice, teacher expectations, effective management, classroom structure, order and discipline, and student diagnosis, evaluation, and feedback.

The reactions to these emerging educational issues have been many. Parents began to express doubt in the American educational enterprise, and the increase in public dissatisfaction and concern about student achievement sparked a myriad of reports on the quality of American education (National Commission on Excellence in Education, 1983; Education Commission of the States, 1983; Boyer, 1983; Goodlad, 1983). These reports have placed the blame for the failure of American education on the inadequacies of the institution itself, lack of competent teachers, failing universities, and poor teacher preparation.

In response to these reports, there have been many different proposals for upgrading education, and legislators, governors, and state department staff have considered or enacted a number of educational reforms. Such proposals and reforms have included state-initiated competency testing for entry into teacher education, initial certification, and certificate renewal or job retention; published proposals for changing teacher preparation programs, state-adopted "alternative" programs for entry into teaching, and, most recently, a call by the Carnegie Foundation for national teacher certification (Jacobson, 1986).

Common response by state and local district educators, boards of education, and state legislators to the national reports has been to reaffirm that the responsibility of the schools is to teach the primary skills of reading, writing, arithmetic, and natural and social sciences. The initiative that has had the most sustained effort has been the one targeted directly toward elementary and secondary student —minimum competency testing (MCT).

#### **The Minimum Competency Response**

Minimum competency testing grew out of the "mastery instruction" and "criterion-reference testing" movements of the 1960s. The MCT movement has been reinforced by time-on-task and effective schools research, which asserts that targeting instruction to specific skills is the most effective way to assure achievement of those skills.

The MCT effort can be traced to Michigan in 1969 with the implementation of the Michigan Educational Assessment Program (MEAP) and to Oregon with its State Board of Education requirement that local districts assess student competencies with locally determined devices in 1974. These two flagship efforts are polar opposites in the MCT movement. The MEAP has focused on formative evaluation of students for reinstruction, compensatory education, and curriculum evaluation; while the Oregon MCT program has focused on minimum skill requirements set at the local district level for graduation from high school.

Since 1969 a total of 31 states have implemented MCT programs (Marshall, 1986), and there are a number of definitions associated with the variety of state efforts to assess student achievement. Perkins (1982) summarizes these as follows:

- "...to measure the acquisition of competence or skills to or beyond a certain defined standard" (Miller, 1978, cited in Perkins, p. 6);
- "...a mechanism whereby a pupil must demonstrate that he/she has mastered certain minimal (sic) skills in order to receive a high school diploma" (Airasian, Pedulla, & Madaus, 1978, cited in Perkins, p. 6);
- "...a device to increase emphasis on the three R's or basics" (Airasian, et al., 1978, cited in Perkins, p. 6);
- "...a mechanism for tightening up promotion requirements; certifying early exit from the school system; holding educators responsible for poor student achievement, increasing the cost-effectiveness of education; identifying and remediating pupils who have learning difficulties; or increasing the public's confidence in the schools and their graduates" (Airasian, et al., 1978, cited in Perkins, p. 6); and
- "...(1) the use of objective, criterion-referenced competency tests; (2) the assessment of reading and computation using 'real life' or 'life skill' items; (3) the requirement of a specified mastery level for high school graduation; (4) the early introduction of such testing for purposes of identification and remediation" (Elford, 1977, cited in Perkins, p. 6).

Diversity in definition of MCT programs may account for discrepancies noted in different reports of the number of states implementing statewide minimum competency tests. According to the Education Commission of the States (1984), state student assessment programs increased in number from 30 in 1973 to 35 in 1984. Testing started as early as kindergarten in one state and as late as grade 12 in 12 states. The content areas most commonly tested were reading (33 states), mathematics (32 states), and language arts (21 states). It was further reported that 39

states had some type of state-supported minimum competency testing program (Pipho & Hadley, 1985). Of these states, standards were set at the state level in 28 instances and at local levels in 15 cases. In five of the states, standards were set at both levels of government, and in one case no standards were set. Twenty of the states used MCT as a requirement for high school graduation, and another three states provided this as a local option. Student remediation was also considered in 20 states.

A basic assumption for implementing a MCT program is that the tests will serve to clearly specify learning expectations and, thus, encourage districts and teachers to target their instruction more precisely. The minimum competency test then serves as a basic standard for judging student performance and instructional success. In addition, minimum competency tests can provide a basis for diagnosis and remediation of academic skills and evaluation of instruction (Cohen & Haney, 1980). The school effectiveness research suggests that improvements in student academic performance can be expected with increased precision in instructional design followed by improved instructional management, greater student time-on-task, and more structured classroom settings. However, research also suggests that remediation efforts implemented as a result of minimum competency test failure at the high school level are not always completely successful. Findings indicate that such remediation is differentially

effective, showing some positive effects between the first and second testings in mathematics and little or no effect in reading (Serow, Davies, & Parramore, 1982).

#### Types of State Testing Programs

State testing programs can be broadly classified into three general categories. The first type of program uses norm-referenced, standardized commercially-developed tests that are given to all students within specified grade levels. The testing usually is done annually or biannually. A typical purpose of this type of testing is to compare student achievement with national norms and report composite data to the district and state.

The second type of state testing program uses standardized tests that are given to a sample of students. In several states, testing is done at specified grade levels using state-wide sampling procedures. This enables more data to be collected on smaller numbers of students. The primary focus of this type of program is to provide state level data on the status of education.

The third type of state testing program uses minimum competency testing. Minimum competency tests are administered at specific grade levels for the purpose of identifying students who have not obtained prespecified essential skills. While the primary focus for reporting has been at the individual student level, aggregate reporting at the classroom teacher, building, district, and state levels has also been common.

### **Common Characteristics of Minimum Competency Testing Programs**

There is great diversity among MCT programs. One state program (e.g., Missouri) requires students to pass an eighth grade test before they can receive credit for related courses in the ninth grade. Another program uses a state-developed, teacher-administered test given to fifth grade students, who must demonstrate 100% mastery of goal-directed exercises (e.g., Nebraska). One state (e.g., Kentucky) requires students in grades K through 12 to pass contractor-developed essential skill tests. In yet another state (e.g., North Carolina), state department-developed competency tests are administered at grades 3, 6, and 8 with end-of-course testing used for biology, algebra, and history. The state also uses a contractor-developed proficiency test, which is administered during grade 10.

In spite of these differences, MCT programs generally have two characteristics in common (Gorth & Perkins, 1979):

- Use of explicit criteria for determining acceptable performance;
- Use of test results to make decisions about individual students.

Other characteristics have emerged. Most states that use minimum competency testing generally develop their own testing programs; test at both the elementary and secondary levels; require passage of a minimum competency test for high school graduation; test reading, mathematics, and writing skills; and require local districts to implement remedial programs for students who fail the test.

The minimum competency tests are commonly multiple-choice, objective-referenced tests distributed and scored by the state departments of education and administered by local educators. The test items are often changed annually using item banks purchased or developed by the state departments.

#### Policy Considerations

While the issue of state-initiated MCT programs has sparked continuous debate in educational circles for more than a decade, little conclusive research has been produced. Educators have warned that minimum competency tests will discriminate against minorities and special students, that there are likely to be problems with equity in the distribution of resources, and that program implementation is dangerously moving forward before completion of adequate debate on the associated issues (Cohen & Haney, 1980; Perkins, 1982). Nevertheless, even after the major expansion of statewide MCT programs in 1979, when six states initiated new programs, the movement has continued to grow at a rate of about two new states each year. Three fifths of the states now use statewide minimum competency tests, which affect thousands of students each year. With this high level of potential impact, attention needs to be focused on several important questions that are reflected in 10 policy issues listed below.

1. State Control. Does statewide MCT increase state control over curriculum, school organization, local educational policies, and classroom strategies? Embedded within this issue is the question of the most effective

mix of state, district, building, and classroom control of the educational process.

2. Student Learning. Do state MCT programs have real educational payoff in terms of student learning? Or, do state MCT programs actually reinforce what schools already do well (i.e., teaching basic skills as opposed to teaching higher-order thinking and problem solving skills)? Related issues are: For what types of learning are MCT programs most effective? Should minimum competency tests include methods for assessing higher-order thinking skills? What type of MCT program is most effective? At what grade levels are minimum competency tests most effective? Are MCT programs more effective than standardized testing programs or other types of state assessment programs?
3. Primary Purpose of MCT. What should be the primary purpose of a statewide MCT program? Should the focus be on providing state level assessment, district curriculum review, or individual student diagnostics? Related to this are: How should the results be reported? Who should be the primary audience for reporting MCT results? Has this audience changed over the past 10 years?
4. Remediation Response. Should students who fail statewide minimum competency tests be provided remediation? If so, under what conditions, and, what types of remedial programs should be provided? Who should pay

for remediation? Associated questions are: How effective are remediation programs? Are resources and results equitably distributed?

5. Curriculum Development Response. What should be the curriculum development response of local districts to statewide MCT programs? Related questions are: What is the impact of course work on MCT results? What impact has MCT had on district curriculum, and has this impact been positive or negative? Have statewide MCT programs resulted in districts adding or deleting curricular areas?
6. Political Response. What has been the political response to MCT? Why have some legislators backed statewide MCT programs while others have criticized the process? What political compromises have been made in legislating MCT programs? What roles should state departments of education, local districts, parents, and others take in this political process? A related question is: Are there differences in statewide MCT programs initiated by state departments and those programs initiated by legislatures?
7. Judicial Response. What legal grounds have been used to challenge MCT programs? On what grounds do MCT programs appear most vulnerable to successful legal attacks? Have judicial rulings had an impact on the MCT movement?
8. Costs of MCT. What are the costs associated with statewide MCT programs? Is this new money allocated for

education? Has it been diverted from other programs? What are the educational gains for the dollars being spent? How does the cost/benefit of statewide MCT compare with the cost/benefit of other educational programs? Are efforts being duplicated? How does the general public feel about the expenditure of educational dollars on MCT programs?

9. Technical Properties of Minimum Competency Tests. What are the technical properties of the tests being used? Do tests differ in validity and reliability according to who develops them (e.g., testing companies or local or state educators)? How do minimum competency tests compare in content, validity, and reliability with commercial standardized tests?

10. Impact on Instruction. How much instructional time is spent on testing in states with MCT programs in contrast to states without MCT programs? Related questions are: What effect does MCT testing have on instruction? Are teachers changing the ways they assess student achievement in the classroom? If so, are these changes enhancing or detracting from classroom instruction?

It is clear that the MCT movement has become a major force in state implementation of public education. Substantial amounts of public monies are being spent on state MCT programs to assure that students learn something from public school education, to restore meaning to the high school diploma, and to develop equity among the school districts within states.

While the MCT movement has had common-sense appeal and legislative backing, there has been little research presented to validate its effectiveness. The 10 policy issues listed above provide a basis for questions worthy of further exploration.

At this time there seem to be no apparent truisms across state MCT programs, except, perhaps, that there is no single MCT model that would be accepted by all the states. Each state has set its own educational priorities and has devised its own methods to attain these priorities.

The remainder of Section I (a) highlights two special concerns embedded within the minimum competency testing movement--remediation and legal considerations, (b) summarizes the results of a survey on the current status of state MCT programs, and (c) addresses implications of the MCT movement. A summary of state-by-state MCT practices is provided in Section II.

#### Special Concerns

Two topics that have received particular attention in connection with MCT programs are remediation and legal considerations. Because of the importance of these issues in the implementation of statewide MCT programs, they are addressed here in some detail.

Remediation  
(by Robert Serow, North Carolina State University)

Theory and Technique

Minimum competency testing is an outgrowth of two recent developments in educational theory and measurement. According to Shepard (1980) MCT "takes its rationale from the psychology of competency-based education and its technology from criterion-referenced testing" (p. 30). Central to both approaches is the idea that educational objectives can be defined, measured, and taught in precise, discrete units. Mastery learning, a form of competency-based education, holds that nearly all students "can attain a high degree of learning capability if instruction is approached sensitively and systematically, if students are helped where and when they have learning deficiencies, if they are given sufficient time to achieve mastery, and if there is a clear criterion of what constitutes mastery" (Bloom, 1979, p. 4). Likewise, in criterion-referenced testing programs each student's mastery of specific skills is measured in absolute terms, rather than in comparison to the achievements of other pupils, as is done in norm-referenced testing. What results from this combination of theory and technique is a cycle of testing, remediation, and retesting that continues until the student has demonstrated the requisite level of mastery.

In principle, competency tests provide an exact indication of each pupil's ability to read, compute, and write at the level deemed necessary for responsible participation in adult life. This level is frequently defined as eighth or ninth grade

achievement. Test results are expected to provide teachers with a basis for identifying underlying deficiencies in these skill areas, and thus allow them to tailor instruction to individual needs.

There are critics of the competency-based approach. Madaus (1981) argues that most competency tests are not sufficiently refined for the purpose of accurate and detailed diagnosis. Furthermore, it is contended that prospects for effective test-based remediation are dimmed by the nature of the high school curriculum, which typically focuses on substantive content rather than on the development of basic competencies.

Apart from the general principles, there seems to be little common ground among the existing statewide approaches to competency test remediation. While some of the states first introduce competency screening at the junior or senior high school level, most states with MCT programs begin screening at the early elementary level (Marshall, 1986). Also there are wide variations in support for and monitoring of remediation. A handful of states provide relatively generous funding to districts that are in compliance with statewide remedial guidelines; other states offer guidelines but no funding, and some leave all decisions about remedial instruction in the hands of local officials. With the emergence of the national trend towards minimum competency testing during the mid-1970s, it was commonly anticipated that MCT remedial efforts would be modeled after Title I compensatory education programs that offered instruction individually or in small groups by teacher-specialists using a "pullout"

format rather than the regular classroom (Archambault, 1979). Instead, the enormous expense associated with a full-scale, individually-tailored program of remediation has resulted in a more haphazard approach, in which schools and districts often make do with whatever resources are at hand, including peer and volunteer tutoring. One common approach is to focus coursework directly on the contents of a simulated competency test prepared by the local staff or purchased from a commercial vendor. Although such "teaching to the test" has been questioned on ethical and instructional grounds, it also has been defended as a practical necessity in a time of tight budgets.

#### Outcomes

The primary objective of MCT remediation is to ensure that high-risk students will have mastered the basic cognitive skills by the time they complete high school. Although actual results are variable, many states report a steadily rising proportion of participants who attain a passing competency test score. In states that use the minimum competency test as a screening device for high school graduation, it can be expected that about 10% to 20% of all students will be unsuccessful on their first attempt. By graduation, though, no more than 1% or 2% of those otherwise eligible students are denied diplomas on the grounds of MCT failure (Serow, 1983).

While this might seem to suggest that competency screening is effective with nine out of ten at-risk students, other explanations must be considered. One possibility is that such gains are more artificial than real. In particular, they signify the

statistical phenomenon known as regression to the mean, or, the tendency of initially extreme scores to move towards the middle of the distribution over the course of repeated testing. This would suggest that test-to-test improvements might have more to do with the law of averages than with the effectiveness of remediation. A second possible explanation centers on the high drop-out rate that is known to exist among academically marginal students. From this perspective, low rates of schools denying graduates a diploma may be attributed to the fact that comparatively few pupils remain in school after failing the competency exam. Still a third consideration is that the gains occur because the students learn how to take the competency test, a phenomenon known in research design jargon as "testing effects".

One of the major controversies surrounding minimum competency testing concerns its impact on groups that have only recently been admitted to the mainstream of American education. Specifically, some educators have suggested that test-based remediation may not be appropriate to the needs of many youngsters from minority and low-income backgrounds or those classified as handicapped. Because publicly reported minimum competency test scores are seldom broken down by pupil background traits, it is difficult to determine how well or how poorly various groups have fared.

The North Carolina MCT remedial data and test results have been compared for samples classified by race and exceptionality. Overall results indicated that black students have higher initial failure rates than whites, receive about the same amounts of re-

mediation, but seem to receive fewer benefits from remediation in the form of test score improvements (Serow & Davies, 1982). Among handicapped pupils, MCT experiences vary according to different categories of exceptionality. Learning disabled and physically handicapped students perform roughly on par with their nonhandicapped peers, whereas pupils who are classified as educable mentally retarded cluster at the very bottom of the test score distribution, receive significantly lower amounts of remediation after a minimum competency test failure, are less likely to attain a passing score on a subsequent re-examination, and are more likely to withdraw from school prior to graduation (Serow & O'Brien, 1983).

Such results are not necessarily representative of all state or local competency test programs. In some states, for example, handicapped students are exempt from test requirements that are not contained in their individual educational plans. Nonetheless, the results do illustrate the enormous difficulties associated with test-based remediation, especially in regard to the societal imperative of equal educational opportunity. Among the major issues requiring further clarification are the dynamics of successful remediation and the quality and stability of test score gains. In the short run, clearer, more detailed information about particular techniques that work best with various students are needed. Over the longer term, it will be important to determine whether passing a competency test, with or without remediation, predicts a person's competence in adult life.

Legal Considerations\*  
(by Martha McCarthy, Indiana University)

The state clearly has the authority to establish academic standards for students, including required examinations. Traditionally, courts have been reluctant to interfere with the broad discretion vested in school officials to impose standards and to evaluate student performance (Regents of the University of Michigan v. Ewing, 1985; Board of Curators of the University of Missouri v. Horowitz, 1978). However, the judiciary will intervene if testing programs are arbitrary or discriminatory or if students have not been provided adequate notice of the test requirements.

Most litigation involving competency testing programs to date has focused on tests used as a prerequisite to receipt of a high school diploma, but principles established in these cases have implications for testing programs used for grade promotion as well. There appear to be five major areas of legal vulnerability: (1) sufficiency of notice, (2) racial impact, (3) adequacy of preparation, (4) participation of handicapped pupils, and (5) remedial opportunities.

Challenges to the adequacy of notice of competency test requirements have been grounded in the due process clause of the fourteenth amendment. To trigger constitutional due process guarantees, it must first be established that a liberty or property right is at stake. A property right is a valid expectation

\*Adapted from M. McCarthy. (1986). Competency tests for students: Are they legal? The Indiana Principal, 10(2), 3, 4, 32.

of a governmental benefit that is created through state laws or regulations. The Supreme Court has recognized that students have a state-created property right to attend school, and procedural due process must be provided before this entitlement is impaired (Goss v. Lopez, 1975). Some students have successfully convinced courts that they also have a property interest in receiving a high school diploma which would require adequate notice of graduation standards and an opportunity to satisfy those requirements before a diploma could be withheld. The Fifth Circuit Court of Appeals found that 13 months' notice of a statewide proficiency testing requirement was insufficient for students to prepare for the test (Debra P. v. Turlington, 1981). Other courts have found that from two to four years' notice of a competency testing requirement is sufficient when the receipt of a diploma is at stake (Anderson v. Banks, 1982; Board of Educ. of Northport-East Northport Union Free School Dist. v. Ambach, 1982), but the Seventh Circuit Court of Appeals indicated that lengthier notice may be required for handicapped pupils (Brookhart v. Illinois State Bd. of Educ., 1983).

Courts have not yet addressed how much notice is required if a test is used solely to determine remediation needs. Under such circumstances, students might have a more difficult time substantiating that a protected interest is involved since the receipt of a diploma is not at stake. However, if a test is used as the sole basis for denying grade promotion, possibly the judiciary would view such action as implicating a property right and would

require a minimum of two years' notice of the test requirement before its implementation.

Challenges to the implementation of a competency programs as racially discriminatory have usually been grounded in the equal protection clause of the fourteenth amendment. To substantiate such a claim, purposeful discrimination must be proven; the mere fact that minority students are disproportionately identified for remediation programs is not sufficient to establish a violation of the equal protection clause. Where students have been successful in proving racial discrimination in connection with a competency testing program, the program has been accompanied by evidence of intentional racial discrimination, such as the lingering effects of a dual school system or a discriminatory tracking scheme. In several cases, school authorities have been enjoined from using proficiency tests as a prerequisite to high school graduation until the effects of the prior racial discrimination have been eliminated (Debra P. v. Turlington, 1981; Anderson v. Banks, 1982). However, even in these cases, the courts have condoned the use of the tests to identify remediation needs.

Competency testing programs are possibly most vulnerable to a successful legal challenge in connection with the adequacy of preparation of students for the test. In 1981, the Fifth Circuit Court of Appeals received national publicity when it placed the burden on the state of Florida to substantiate that a proficiency test covered material that actually had been presented to students (Debra P. v. Turlington, 1981). While this standard has been referred to as instructional or curricular validity, in es-

sence the appeals court required proof that pupils had been adequately prepared for the examination. The case was remanded to the federal district court to give the state an opportunity to present evidence that the test was fundamentally fair in that it covered what had been taught to Florida students. In preparing for the trial, the state of Florida expended a substantial amount of money to establish that the state's students were adequately taught the skills on the proficiency test. Outside consultants were hired to interview teachers and a sample of students and to review school district curriculum guides and other documents to assess the match between the skills on the test and the material covered in Florida classrooms.

Florida ultimately was able to convince the court that students were adequately prepared for the test (Debra P. v. Turlington, 1984), but other states might not be willing to make such an investment of time and money to substantiate that students have actually been taught the material covered on a competency test. To date, the adequacy of preparation has been contested only in connection with competency examinations used as a prerequisite to receipt of a high school diploma, but the judicial willingness to address whether competency examinations match the curriculum may portend greater judicial intervention in reviewing tests used for promotion purposes or to determine remediation needs.

Another area of potential vulnerability pertains to the application of competency tests to handicapped children. Courts in general have ruled that the state does not have to alter its academic standards for handicapped children; thus, handicapped

students can be denied grade promotion or a diploma if they do not meet the specified standards (Brookhart v. Illinois State Bd. of Educ., 1983; Board of Educ. of Northport-East Northport Union Free School District v. Ambach, 1982; Anderson v. Banks, 1982). However, handicapped children cannot be denied the opportunity to satisfy requirements (including test requirements) for promotion or a diploma. Whether handicapped children who are taken out of regular classroom instruction to receive special services could successfully assert that they are not being prepared to pass the competency examination remains to be clarified by the courts.

As mentioned previously, the Seventh Circuit Court of Appeals has ruled that handicapped children may need lengthier notice of the competency test requirement than provided for the nonhandicapped to ensure adequate opportunities for the skills on the test to be incorporated into their individualized educational programs (Brookhart v. Illinois State Bd. of Educ., 1983). Handicapped students also are entitled to special accommodations in the administration of examinations to ensure that their actual ability, rather than the handicapping condition, is being assessed.

In addition to the four areas mentioned above, school authorities also might be legally liable if appropriate remediation opportunities are not provided for those who fail the proficiency examination. Most courts have agreed that students are entitled to remediation and the opportunity to retake the proficiency examination to demonstrate their competency. Indeed, if a stu-

dent's deficiencies are identified and appropriate remediation is not provided, the grounds for a successful instructional negligence suit may be strengthened (McCarthy & Cambron-McCabe, 1987).

School authorities cannot avert law suits, and specific competency testing programs seem likely to continue to generate litigation on the grounds discussed above. However, educators can take steps to avert successful legal challenges. To reduce legal vulnerability, school authorities should ensure that: (1) students are adequately prepared for the test; (2) sufficient notice of the test requirement is provided; (3) the test is not designed for discriminatory purposes; (4) appropriate accommodations for handicapped children are made; and (5) students are provided remedial opportunities and the chance to retake the examination. If these conditions are satisfied, legal challenges to competency testing programs are not likely to be successful.

#### **The Status of State Minimum Competency Testing: A Survey**

Presented in this part is a summary of the survey data pertaining to the current status of state MCT programs including cost information. Specific state-by-state data are presented in Section II. These data were collected from the state departments of education in 1985 and updated in 1986.

#### **Method**

The procedure used was to conduct a survey of the 50 states pertaining to their testing programs. In most instances, the survey was mailed to a specific contact person as identified in a report released by the Education Commission of the States (Pipho

& Hadley, 1984). In situations where contact names were not available, the survey was sent to the director of testing at the address of the state department of education. The initial survey was mailed during the late spring of 1985. A follow-up mailing was distributed about three weeks after the initial mailing and again during late summer. In January, 1986, the remaining non-respondent states received a third follow-up survey, but this time the survey was mailed to the state superintendents. The data-producing sample consisted of 45 states. The only states not responding were Florida, Minnesota, Oregon, Virginia, and Washington.

The survey consisted of four parts that focused on the following questions.

Each of these parts had several subquestions. Of primary importance to this study were the questions in Part 1 associated with MCT. Respondents were asked: Were the tests specifically constructed by/for the state or purchased? Who initiated the competency testing program? Is the test used as a graduation requirement? When is the test administered and how many times

can it be retaken? Have remedial classes or procedures been established for failing students? Has the curricula been modified, based on the test results?

In addition, states were asked to provide copies of state regulations, policy documents, sample tests, technical manuals, and other materials related to their testing programs. Most states indicating that they had testing programs returned written documents explaining their programs, and in some instances they supplied tests and associated manuals or reports.

During the fall of 1986 all 50 states were again surveyed to update and verify the information resulting from the 1985 survey. Each state representative was provided with summary information on the state's MCT program. The representative was asked to verify the accuracy of the information, correct inaccuracies, and provide updated information. Responses were returned by 40 of the states including Oregon and Virginia, two of the states that had not responded to the original survey. At this time only three states have not provided information: Florida, Minnesota, and Washington.

#### Classification of State Testing Programs for Students

As noted earlier, there are a number of different definitions of MCT programs. It is clear in the examination of the state-provided information that there are differences among education professionals as to what constitutes a state minimum competency program, statewide MCT program, state educational assessment program, or standardized testing program. For some states the distinction among these types of programs was easily

discernible, while in others it was more difficult. This was evident when comparing the state survey results with data from a report prepared by Piph and Hadley (1985). Initially 10 of the states listed by Piph and Hadley as having MCT programs responded on the survey that they did not have statewide MCT programs. In the 1986 "update" survey, one of these states reversed its previous decision from a "no" to a "yes", indicating that the state does have a MCT program. This incident underscores the problem in MCT program definition.

The nine states indicating that they did not have MCT programs are Arizona, Colorado, Delaware, Illinois, New Hampshire, Ohio, Utah, Vermont and Wyoming. The "testing" programs of these states are reviewed in the following paragraphs. Again, the reader should keep in mind that none of the following descriptions of state student testing programs are considered to be "minimum competency testing programs" by the adopting state.

Arizona. By state regulation, in April of each year the state board of education conducts a statewide assessment of all students in grades K - 12 in the areas of reading, grammar, and mathematics. In 1984, the fourth year of the Arizona Pupil Achievement Testing Program, the California Achievement Tests (CAT) were implemented. In addition, the state board of education worked with local districts in establishing the Continuous Uniform Evaluation System (CUES), which provides ". . . a continuous uniform evaluation system of pupil achievements in relation to measurable performance objectives in basic subjects." (Arizona State Department of Education, 1985, p. 11). Furthermore, stu-

dents graduating from grades 8 and 12 must either successfully pass a district-developed test of the basic subjects and the state adopted list of skills for mathematics, listening and reading, and speaking and writing at the 75% level; or perform at the 4th stanine (or above) on the state-adopted pupil achievement test for reading, language, and mathematics.

Colorado. According to the survey response, the state of Colorado does not have a statewide assessment or MCT program, although a standardized achievement program is being considered.

Delaware. Legislation was passed in 1978 that established the Delaware Educational Assessment Program. This program provides for statewide standardized testing in grades 1 through 8 and in grade 11 in the content areas of reading, English, and mathematics. For the first five years of the program, the CAT was used; for the 1984 assessment, the test was changed to the Comprehensive Tests of Basic Skills. The state program provides numerous computer generated reports of student test performance for parents, teachers, principals, and district and state administrators. (Delaware State Department of Education, 1984).

Illinois. The state board of education reports state level information on four different measures of student achievement. These measures are the Illinois Inventory of Educational Progress, High School and Beyond Test, Scholastic Aptitude Test, and American College Test. Student samples from grades 4, 8, 11, and 12 are used in these assessments. The state legislature has stated that it is opposed to a statewide MCT program. The state board's student assessment policy encourages ". . . local school

districts to develop comprehensive student testing and program evaluation plans based on multiple methods of student assessment" (Illinois State Board of Education, 1984, p. 1).

New Hampshire. As of October, 1985 a new standardized testing program was being implemented for grades 4, 8, and 10. Areas to be tested include reading, language arts, mathematics, science, social studies, and academic aptitude. This program is replacing one that has been in place since 1958. The purpose of the testing program is twofold: (1) to provide information to the state board of education and to local school districts; and (2) to assist local school districts in assessing the degree of educational achievement in the district by identifying strengths and weaknesses in the curriculum and identifying students or groups of students (e.g., specific populations) who need remedial assistance (New Hampshire State Board of Education, 1985).

Ohio. The state of Ohio does not have a statewide testing program. A standardized testing program is being considered. The state board of education is required by statute to "formulate and prescribe minimum standards to be applied to all elementary and secondary schools in the state" (Ohio Department of Education, 1983, p. 1). The state's standards mandate that schools begin "implementation of competency based education in English composition, mathematics, and reading . . . no later than the 1984 school year, with full implementation to be completed no later than the 1989-1990 school year" (p. 5). In addition, procedures are to be established to monitor student achievement.

Utah. The state office of education conducts a broad-based state-wide assessment of a stratified sample of students in grades 5 and 11. Goal-based measures are used in the areas of intellectual, emotional, social, aesthetic, and productive maturity; attitude toward school; educational processes; and demographics and school classifications (Guest, Nelson, Ellison, & Fox, 1984). The state's new core curriculum will require additional testing (procedures are now being developed). Assessment of student mastery of the core curriculum is to occur during or at the completion of grades 8, 10, and 12. Implementation of the assessment procedures will be the responsibility of local boards of education (Utah State Board of Education, 1984).

Vermont. The state of Vermont does not have a statewide assessment program. There is a basic competency program with minimum lists of objectives in the areas of reading, writing, speaking, listening, mathematics, and reasoning. ". . . [S]kills [are] to be taught and assessed by teachers and mastered by students before entry into high school" (Vermont Department of Education, 1985, p. 1). Currently, mastery of these competencies is a graduation requirement. This requirement is to be dropped with the graduating class of 1989 (Vermont Department of Education, undated).

Wyoming. Wyoming does not have a statewide assessment program. In 1984, the state participated in a National Assessment of Educational Progress (NAEP) assessment of reading and writing for grades 4, 8, and 11. During 1986, the state took part in a similar assessment program of science, mathematics, and

computer knowledge. Wyoming does have a minimum competency program established by state board policy in 1980. School districts within the state are required "to identify individual student needs in reading, writing, computation, civic and economic responsibility, and provide assistance to those students" (Wyoming Department of Education, 1982, p. i). The State Board's policy clearly places the "responsibility for [identifying objectives,] setting standards, assessing students, and determining the point at which they may be graduated at the local district level" (p. i).

It is evident from these descriptions that at least four of the nine states do not have MCT programs. Three of the states (Arizona, Delaware, and New Hampshire) have implemented basic skills testing programs that could easily pass for MCT programs. Two other states, Ohio and Vermont, have implemented competency-based education programs that would be closely aligned with MCT programs.

Thirty of the responding states indicated that they had implemented MCT programs. Figure 1 (p. 32) presents a list of those states indicating that they have MCT programs.

There is considerable variety in statewide assessment programs as defined by these states. The following examples of MCT programs are illustrative of the range of testing practices among the states. Texas, for example, has a legislatively mandated program. The state department worked with an outside contractor, Instructional Objectives Exchange, to develop tests in reading, mathematics, and writing for grades 1, 3, 5, 7, 9 and 11. The

Figure 1. States Indicating that they had Statewide MCT Programs, 1986-1987\*

1. Alabama	11. Louisiana	21. New Mexico
2. Arkansas	12. Maine	22. New York
3. California	13. Maryland	23. North Carolina
4. Connecticut	14. Massachusetts	24. Oregon
5. Georgia	15. Michigan	25. Pennsylvania
6. Hawaii	16. Mississippi	26. South Carolina
7. Idaho	17. Missouri	27. Tennessee
8. Indiana	18. Nebraska	28. Texas
9. Kansas	19. Nevada	29. Virginia
10. Kentucky	20. New Jersey	30. Wisconsin

\*47 states responded to the survey

grade 11 test is a requirement for high school graduation. It can be taken twice a year during grades 11 and 12.

North Carolina has a legislated statewide MCT program. A grade 11 test was mandated in 1978 as a graduation requirement. A purchased standardized test is used; it can be retaken up to five times prior to graduation. In 1983 (and again in 1985) the state legislature mandated competency testing at grades 3, 6, and 8 in reading, mathematics and language, as well as end-of-course testing in biology, algebra, and history at the secondary level. These tests are being developed by the state department of public instruction using state educators for item writing.

Missouri uses a state-developed life skills proficiency test given initially in grade 8. The test is not used as a graduation requirement. However, students cannot receive credit for ninth grade courses in areas covered on the proficiency test that they have not passed. The areas tested are reading/language arts, mathematics, and government/economics. Through legislative action in 1985, state tests were made available for grades 3, 6, 8, and 10 in English, reading and language arts, and grades 2, 4, 5, 7, and 9 in science, social studies, civics and mathematics.

Michigan has a custom-developed state assessment program (D. L. Donovan, personal communication, August 1986). The Michigan Educational Assessment Program (MEAP) was first established in the 1969-1970 school year. It became an objective-referenced assessment in 1973-1974, and new objectives and tests were introduced in 1980-1981. The MEAP is a statewide assessment program in reading and mathematics for all students with other content areas covered on tests used with a sample of students. Test administration is done in the fall at grades 4, 7, and 10. The MEAP materials emphasize that the test results can be used to assess individual and program strengths and weaknesses. The program notes that only some of the objectives in a curricular area are covered on the test and that the state-established criteria may be inappropriate for a particular program or student. Numerous reports, ranging from individual student data to the status of education in the state, are provided (Michigan State Board of Education, 1985).

### Characteristics of State MCT Programs

Table 1 (pp. 36, 37) contains a summary of the demographic information on state MCT programs. It can be seen from the table that the majority (64%) of the responding states have statewide MCT programs. Two-thirds of the programs have been initiated by state legislatures, and most of the remaining programs were generated by state education agencies. Over half (56%) of the programs were initiated prior to 1980; another 20% were started between 1980 and 1982; and 23% were initiated from 1983 to 1985. No new MCT programs were begun during 1986. The most frequent grade levels tested are grade 3 (57%), grade 6 (43%), and grades 8 and 9 (47% each). Of those states having statewide MCT programs, 60% require that the tests be used as a graduation requirement. This represents one third of all the states. Typically, states using the tests for graduation have no limits on how many times students can take the test, but a few states have set limits on the number of retakes (e.g., from 3 to 5). The most common areas tested on the competency tests are mathematics (100%), reading (100%), and writing (60%). Remediation of students failing the test is required by over two thirds of the states that have MCT programs. In the majority of the states, the tests have been developed by the state educational agencies, although about one third of the states use outside contractors, and one fifth of the states purchase the tests.

Half the states that have statewide MCT programs indicated that they had modified the basic curriculum as a result of experiences with the program. The curricular areas modified were

reading (9 states), mathematics (9 states), writing (6 states), language arts/English (3 states), social studies (1 state), listening (1 state), and general basic skills (1 state). Five states said that changes have been made in curriculum at the local level. One state said that it was too early to know if curriculum would be affected; one state indicated that it had no data, but that any changes made would be at the local level; and six states reported that no changes had been made but indicated that the tests were designed to assess already established state-specified curriculum.

Table 1. Characteristics of State NCT Programs

VARIABLE	CATEGORY	FREQUENCY <sup>a</sup>	PERCENT RESPONDING <sup>a</sup>	PERCENT OF TOTAL <sup>a</sup>
States (N = 50)	States Responding with Competency Testing	30	64	60
	States Responding with no Competency Testing	17	36	34
	Non-Respondents with Competency Testing	1	—	2
	Non-Respondents with No-Competency Testing	2	—	4
Initiator of Competency Testing Program (N = 30)	State Education Agency / Board	12	40	25
	Governor	2	7	4
	Legislature	20	67	42
Year Competency Testing Program Adopted (N = 30)	1969	1	3	2
	1970	0	0	0
	1971	0	0	0
	1972	0	0	0
	1973	0	0	0
	1974	1	3	2
	1975	0	0	0
	1976	2	7	4
	1977	3 (1)	10 (3)	6 (2)
	1978	4	13	8
	1979	6	20	13
	1980	3	10	6
	1981	1	3	2
	1982	2	7	4
	1983	1 (1)	3 (3)	2 (2)
	1984	4 (2)	13 (7)	8 (4)
	1985	2 (3)	7 (10)	4 (6)
	1986	0 (3)	0 (10)	0 (6)
Grade Levels Tested (N = 30)	K	1	3	2
	1	4	13	8
	2	6	20	12
	3	17	57	36
	4	7	23	15
	5	10	33	21
	6	15	43	28
	7	8	27	17
	8	14	47	29
	9	14	47	29
	10	11	37	23
	11	8	27	17
	12	2	7	4
	Local Option	2	7	4

<sup>a</sup>Numbers may total to other than 100% due to rounding errors, multiple classifications and missing data.<sup>a</sup>Numbers in parentheses ( ) indicate updates in legislation/regulations

Table 1. Characteristics of State MCT Programs (continued)

VARIABLE	CATEGORY	FREQUENCY*	PERCENT RESPONDING*	PERCENT of TOTAL*
Tests used for Graduation [N = 30]	State Requirement	16	53	34
	Local Requirement	2	7	4
	Local Option	1	3	2
	No	12	40	25
If Graduation Requirement, Number of Times Test can be Retaken [N = 18]	0	0	0	—
	1	0	0	—
	2	0	0	—
	3	1	5	—
	4	2	11	—
	5	3	17	—
Content Areas Tested [N = 30]	No Limit	12	67	—
	Career Development / Awareness	1	3	2
	Health	1	3	2
	Language Arts / English	14	47	29
	Life Skills	2	7	4
	Listening / Speaking	4	13	8
	Mathematics	30	100	63
	Reading	30	100	63
	Problem Solving	1	3	2
	Reference/Study Skills	4	13	8
	Science	8	27	17
	Social Studies/Government/Economics	8	27	17
	Spelling	2	7	4
	Writing	18	60	38
Remediation for Failing Students [N = 28] [missing = 2]	State Requirement	20	72	42
Developer of the State Competency Test(s) [N = 29] [missing = 1]	Local Option	2	7	4
	No	6	21	—
Developer of the State Competency Test(s) [N = 29] [missing = 1]	State Educational Agency	17	59	36
	Outside Contractor	11	37	23
	Purchased Tests Used	6	21	13
	Locally Developed	2	7	4
	State University	3	10	6

\* Numbers may total to other than 100% due to rounding errors, multiple classifications and missing data.  
# Numbers in parentheses ( ) indicate updates in legislation/regulations

### Cost Information

State spending on testing ranged from no allocation to over \$3,000,000 per year (see Table 2, p. 39). The majority of states either spent less than \$200,000 or between \$1,000,000 and \$2,000,000. The per student cost for assessment in most states was between \$1.00 and \$5.00, with an average of \$3.31. Care needs to be taken when interpreting cost information because states that conduct statewide "sampling" spend considerably more per student assessed (not per capita student in the state) than do states testing all students. Also, cost data do not include many interrelated expenditures such as costs of remediation. Overall, these data indicate that annually over \$30,000,000 is spent by states that assess more than 9,000,000 students.

The cost data were broken down for states that had statewide competency testing only, standardized testing only, and both types of assessment programs (see Table 3, p. 39). It can be seen that states using either type of program (but not both) spend slightly less than \$3.00 per student annually while states using both types of programs spend over 50% more, exceeding \$4.50 per student annually.

Table 2. State Spending Levels on Testing (1984-1985)

State Spending (in thousands)	Frequency	Percent	Cost per Student Assessed	Frequency	Percent
Over \$3,000	1	3	Over \$10.00	5	14
\$2,001 - \$3,000	3	8	\$5.01 - \$10.00	5	14
\$1,001 - \$2,000	7	19	\$4.01 - \$5.00	3	9
\$ 801 - \$ 1,000	4	11	\$3.01 - \$ 4.00	4	11
\$ 601 - \$ 800	2	5	\$2.01 - \$ 3.00	6	17
\$ 401 - \$ 600	1	3	\$1.01 - \$ 2.00	5	14
\$ 201 - \$ 400	5	14	\$0.01 - \$ 1.00	1	3
\$ 1 - \$ 200	7	19	0.00	6	17
\$ 0	7	19			
<b>Total Expenditures:</b> <b>\$30,779,000</b>			<b>Total Students Assessed:</b> <b>9,297,000</b>		
			<b>Expenditure per Student:</b> <b>\$3.31</b>		<b>No. States:</b> <b>38</b>

Table 3. State Testing Expenditures by Type of Testing Programs (1984-1985)

Type of Testing Program	Number of States	Average Expenditure per Student Assessed	Standard Deviation
Competency testing only	7	\$2.80	1.86
Standardized testing only	5	\$2.74	1.39
Both types of programs	12	\$4.59	3.19

\* States with other types of assessment programs (including state-wide student sampling) were not used in these calculations

## Summary and Implications

### Summary

During the past 20 years there have been over 1,000 referenced articles, papers, and reports written on minimum competency testing for students. The most common documents have been position papers and state-specific descriptive reports. Little empirical research has been presented. Nonetheless, the majority of states have forged ahead, implementing minimum competency testing as an assessment of student achievement for the purposes of remediation and high school graduation. Since the earliest program was implemented in the 1960s, the state MCT movement has continually gained momentum with new states added almost every year through the 1970s and early 1980s.

There are some things known about minimum competency testing and its relation to schooling:

- American public schools have done a credible job of teaching students the fundamental skills in language arts, mathematics, and social science, but have been less successful in teaching higher-order thinking and problem-solving skills.
- State minimum competency testing has provided a mechanism for many state departments of education to exercise greater control over curriculum than has been practiced in the past.
- The majority of states have implemented MCT programs. There is little similarity among the state programs. The commonalities that can be noted among the majority of programs are as follows:
  - Passing of a minimum competency test is required for a student to receive a high school diploma.
  - Minimum competency tests are administered at both elementary and secondary levels for the diagnosis of student deficiencies; students failing the test are to be provided remediation.

- Minimum competency tests are administered in the areas of reading, mathematics, and writing; however, the definitions of the skills to be tested within these areas vary from fundamental, basic essential skills to life skills.
- Remediation efforts and procedures differ widely, and the benefits of remediation efforts may vary according to the race of students or their handicapping conditions.

The survey data indicate that the majority of states are now using statewide MCT programs and that for most of these states the testing program is required by legislative mandate. Statewide MCT programs were implemented as early as 1969, and new states were added to the list every year through 1985. The primary areas of testing are reading, mathematics, and writing, with testing most commonly implemented at grades 3, 6, 8, and 9.

State MCT programs have become a major business with millions of dollars spent directly on testing each year. States that use both standarized testing and MCT spend over 50% more than states using only one of these types of testing. This suggests that when states implement a second type of testing, the new testing is in addition to the existing testing program and does not supplant previous testing.

It is clear that in monitoring statewide developments in testing, researchers must carefully define terms such as statewide competency programs, statewide MCT, standarized testing, and statewide educational assessment. Differences in the data reported in this area may reflect differences in definitions of these terms.

### Implications

In the first part of this report 10 major policy issues were identified. These issues serve to underscore the uncertainty associated with minimum competency testing. If the current trend continues, by 1990 five or six of the nineteen states not having MCT programs might be expected to initiate such programs, and one third of the states having MCT programs will upgrade or modify their programs. What then are the primary implications of these developments for state policymakers?

1. State policymakers should determine the primary purpose for a MCT program.

MCT programs may have several different purposes. For example, a minimum competency test can be implemented as a graduation requirement to restore public confidence in public schools. A second purpose for elementary or secondary minimum competency testing programs is to diagnose student deficiencies on the assumption that the public schools are failing to provide adequate basic skills education. A MCT program may also be initiated to focus on higher-order thinking skills, such as those assessed on the SAT or ACT examinations. A fourth purpose is to provide the state department of education with information to assure equity among the state's school districts. Before a MCT program is initiated or modified, the actual purpose of the program should be identified so that the program design can be targeted to specific needs.

2. State policymakers should support research on the effectiveness of MCT programs.

The MCT movement has been a reactionary movement designed to confront perceived problems in American education. Many different MCT programs have been implemented. To date there has been little research available to guide future decision making. The policy issues listed in the first section focus on many of the central questions that need to be addressed now that there have been several years of experience with MCT programs. Many of these questions will require multi-state cooperation in research efforts.

3. State policymakers should examine potential duplication of efforts associated with MCT programs.

More than three fifths of the states have developed MCT programs. In these states, local and state educators are handling the writing of behavioral objectives and other curriculum materials. Remediation programs are being developed and test items are being written, edited, and formed into test booklets. A number of new consultant and computer firms have entered the test development and scoring business as well. Many commercial test publishers are producing customized tests, and state universities are providing item development services. Currently, there is little sharing of information among the states. Most states are independently developing their own MCT programs. Time and money are wasted by state governments who duplicate efforts that have been completed in other states. This problem should be addressed.

The attention currently focused on statewide minimum competency testing for students is indicative of the renewed recognition by state policymakers that the state government is responsible for public education. The establishment of a uniform set of competencies and a single assessment strategy necessitates shifting many curriculum decisions from local districts to the state level. This increasing centralization of decisionmaking in terms of student competencies has significant implications for state school support schemes as well as state regulatory activities.

Whether MCT programs will have primarily a positive or negative impact on students and public education remains the subject of considerable debate. But regardless of the merits of such programs, most schools and students seem destined to be affected by them. Given the general disenchantment with public education and the demands for "results" in return for tax dollars, the establishment of proficiency standards for students has been viewed by many as a means of targeting educational efforts on producing measurable outcomes. Serious consideration needs to be given to the policy issues raised in this paper for MCT programs to meet their asserted objective of assuring that students in public schools are mastering basic academic skills and that schools are accountable for providing all students an adequate education.

## Section II

### State Practices in Minimum Competency Testing for Students

#### State-by-State Data

The preceding section provides an overview of survey data on the current status of state minimum competency practices. This section presents specific information on MCT programs in each state. State-by-state information is taken from the 1986 survey in which 47 of the 50 states responded (information about the state of Florida has been adapted from Trubek and Patterson, 1986). The state summaries address whether a state has a state-wide MCT program and, if it does, who initiated the program and when the program was adopted. Other areas surveyed include the grade level(s) and subject areas tested; whether the minimum competency test is a graduation requirement and, if it is, how many times the test can be retaken; and who developed the test. Also, contact persons for each state are given in the event that additional information is desired.

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	COPPERAS		
						INITIATED BY	ADOPTED	LEVEL(S)
Alabama	State Board of Education	1977	3, 6, 9	Check Pos.	—	Alabama Educators	Reading Language Mathematics	Contact: Dr. Eldon Johnson Student Inst. Service Dept. of Educ. Montgomery, AL 36130
					4	Alabama Educators	Reading Language Mathematics	Use of tests have resulted in curriculum modifications.
								Remediation done at local level; materials furnished by state on limited basis.
Alaska	None							Contact: Dr. Alexander Basalton Dept. of Educ. Office of Evaluation, Assessment & Research Pouch P, Goldbelt Place Juneau, AK 99811
Arizona	None							Contact: Mr. Steve Stephens Arizona Dept of Educ 1515 West Jefferson Phoenix, AZ 85007
Arkansas	Legislature	1983	3	Local grade promotion at LEA option	0	Arkansas Educators	Reading Mathematics Language Arts Science Social Studies	Contact: Constance Dardin Coordinator Arkansas Dept of Educ 14 Capital Hall Little Rock, AR 72201
			6	Local grade promotion at LEA option; remediation	0	Arkansas Educators	Reading Mathematics Language Arts Science Social Studies	
			8	Grade promotion to high school	2	Arkansas Educators	Reading Mathematics Language Arts Science Soc. Studies	

STATE	ACTION	YEAR	GRADE	GRADUATION	TESTS CAN	INITIATED BY	ACADEMIC LEVEL(S)	REQUIREMENT TO BE MEETEN	DEVELOPED BY	AREAS TESTED	COMPIRES
California	Legislature	1977	at least	Local profi- ciency	1	Both locally and state in grades 4 - 6 and promotion 1976	Local re- quirement twice in grades 10 - 12	Requirement for grade promotion for graduation mastery	Developed and purchased by local level	Reading Writing Mathematics the local level	Contact: Dr. Dale Carlson California Assessment Program Dept. of Educ. 721 Capital Mall Sacramento, CA 95814- 4785
Colorado	None				2						Counseling and remediation required for students fail- ing test.
Connecticut	Legislature	1980	4, 6, 8 proficiency	No	1	Connecticut State Depart- ment of Educa- tion	Mathematics Reading Writing	Mathematics Reading Writing	Contact: Mr. Peter Behuniak Supervisor, CBI Project Dept. of Educ. 201 East Colfax Avenue Denver, CO 80203		
Delaware	None				1						Contact: Dr. Wilmer Wise Dir. Planning, Research and Evaluation Box 1403 Dept. of Educ. Dover, DE 19903

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN			COMMENTS
						INITIATED BY	ADOPTED	
Florida	Legislature	1977	3, 5, 8	Check Pts	—————		SEOF-I	
			10				Reading	
							Writing	
							Mathematics	
								State Student Assessment
			10	Yes, since			SEOF-II	Test I (SEOF-I) evaluations
				1983			Communication	based on minimum statewide
							Mathematics	performance standards.
							SEOF-II	assesses using
								realistic situations.
Georgia	State Board of Education	Initial 1980	Pre-1st Required	Tested in 1st grade	1 year	CB/C.A.T.	Reading	Contact: Dr. Stan Bernkopf Dept. of Educ. 91870 Twin Towers East
				placement	Spring		Mathematics	
		Updated 1985	1, 3, 5, Required	Tested in 4th grade	Georgia State University	Reading	Literacy	
			6, 8	Spring	University	Mathematics	Mathematics	Atlanta, GA 30334
				placement				
							Problem Solving tested	
							within reading & math	
			2, 4	Optional	Georgia State University	Reading	passing set as 50% for both	
					Spring	Mathematics	reading & math; writing to	
								be tested fall, 1987.
			10	Yes	2 times per year	Georgia State University	Mathematics	Remedial classes are pro-
								vided for students that
							Writing	fail the test(s).
Hawaii	Superintendent of Educat.	1980	3	—————			Language Arts	Contact: Selvin A. Chin-Chance
							Self Concept	
							Decision Making	1037 S. Beretania St.
							Independence	Honolulu, HI 96814
							In Learning	
							Physical & Curriculum-referenced test	
							Health	administered to all 3rd
							Career Dev.	grades to assess Hawaii's
							Responsibility & Foundation Program Obj.	
							Creative & Results used for curriculum	
							Aesthetic	review and remediation.
							Sensitivity	
			9	Yes	5	KWEL	Basic Skills	science, language arts,
						ESL	Life Skills	social studies, and health;
								remedial classes established
								for failing students.







STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES OUT	INITIATED BY/ADOPTED	LEVEL(S)	REQUIREMENT	REDUCED	DEVELOPED BY	AREAS TESTED	COMMENTS
Massachusetts	Legislature	1965	3, 6	Check Pt.	Fall	Department of	Reading			Contact: Allen Hartman		
					Annually	Education	Writing			Dept. of Educ.		
							Mathematics			Bureau of Research & Assessment		
		19	Yes		Annually	Department of	Reading			1385 Hancock Street		
						Education	Writing			Quincy, MA 02169		
							Mathematics					
										Board to set standards for		
										mastery; local districts		
										can set higher standards.		
										Purpose of testing program		
										is to identify those students		
										needing assistance in		
										mastering basic skills.		
Michigan	State Board of Education	1969	4, 7, 10	No			Department of	Reading		Contact: David L. Denner		
							Education in	Mathematics		Assistant Superintendent		
	Legislature					cooperation	Science			Technical Assistance & Evaluation		
						with local				Dept. of Educ.		
						school dist-				P.O. Box 30008		
						rics				Lansing, MI 48908		
										MEAP is used in a formative		
										manner to define areas of		
										student need for reinstruc-		
										tion and compensatory pro-		
										grams, and for curri-		
										culum study, compensatory		
										funding allocations for		
										state programs are based on		
										the results. Sampling done		
										in social studies, music,		
										art, physical education,		
										health ed. & career dev.		
Minnesota	No Response											

STATE	ACTION	YEAR	GRADE	GRADING	TIMES CAN	COMMENTS		
						INITIATED BY	ADOPTED	LEVEL(S)
Mississippi	Legislature	1982	11	Yes, only functional literacy portion of test	Has not been set by State Board	Under con- tract with National Com- puter Systems	Reading Writing - test item specifications	Contact: Dorothy Moore Bureau of Assessment State Dept. of Educ. Jackson, MS 39205
			3, 5, 8	Check Pts.	Check Pts.	developed by local educa- tors	Reading Mathematics Communication	
Missouri	State Dept. of Education	1979	8	Not required to obtain credit for courses in grades 9 and 10 on the MSEI test.	Pall and Spring	State Dept. of Education, University of Missouri-Columbia	Reading/ Language Arts/ Mathematics/ Economics/ Faculty	Contact: James L. Firedbach Dept. of Elem & Sec Education P.O. Box 480 Jefferson City, MO 65102 The MSEI test has 13 obj. in each of the 3 areas.
	Legislature	1985	3, 6, 8	Check Pts.	10	State Dept. of Education	English/ Reading/ Language Arts	There are 10 objectives tested at the local level;
			2, 4, 5, 7, 9	Check Pts.	Check Pts.	University of Missouri- Columbia	Forms of the test is on Life Skills. Science Social Studies Civics Mathematics	forms of the test is on Life Skills. Science Social Studies Remediation is provided for these students who do not pass the test.
Montana	None							Contact: Ray Shunkleford Deputy Superintendent Office of Public Instr. State Capital Helena, MT 59620

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES C/W	TESTS			COMMENTS
						INITIATED BY/ADOPTED	LEVEL(S)	REQUIREMENT	
Nebraska	State Dept. of Education	1976	Beginning (with grade 3 until mastery)	No	No Limit	State Dept. of Education	Reading, Writing, Spelling, Mathematics, Reference	Contact: Hugh A. Berlin, 301 Centennial Hall S. P.O. Box 94987 Lincoln, NE 68509	The Nebraska-Assessment Battery of Essential Skills (NAEBS) consists of 12 goal oriented exercises for which students demonstrate 100% mastery. Teachers are to administer the tests when students are considered ready to take them normally, testing will start in the 5th grade and all tests mastered as soon as possible.
Nevada	Legislature	1979	3, 6, 9	Screening	—	State Dept. of Education	Reading, Mathematics, Nevada High Writing, School Proficiency Exam	Contact: George Barnes, State Dept. of Educ. 400 West King Carson City, NV 89710	Remedial study is provided for students failing the examination. Stanford Achievement Test used for assessment at grades 3 and 6. Students may be passed if they fail the grade 3, 6 or 9 proficiency tests; but, remediation must be provided. Students cannot graduate until they pass the grade 11 test.

STATE	ACTION	YEAR	GRADE	GRADUATION REQUIREMENT	TIMES CTR	DEVELOPED BY	AREAS TESTED	COMMENTS
New Hampshire	None							Contact: James V. Carr Voc. Guid. Consultant State Dept. of Educ. 101 Pleasant Street Concord, NH 03301
								Proposal made to State Board of Education from an Advisory Committee that a state-wide testing program assess students each fall in grades 4, 8, and 10.
New Jersey	Legislature	1978	9	Yes	Annually	ECS (78-79)	Reading	Contact: Carl Johnson 225 West State Street Trenton, NJ 08625
						NES (80-84)	Reading	
						Mathematics	Remediation provided for added 80-84 Writing	students who do not pass (called NES) the test.
						Writing		
						WCS (84-85)	Reading	Writing was added in 1983-84
						Mathematics	Writing	1984 as a new, more difficult test was developed;
						Writing		(called NSPT) commercial standardized
								tests are used by districts
								for testing in grades 3-6.
								NES test graduation requirement; NSPT graduation requirement 1989 class.

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	CONCERN		
						INSTITUTED BY/ADOPTED	LEVEL(S)	REQUIREMENT
New Mexico	State Board	1977	10	No	No Limit	State Board	Reading	Contact: Judith Pais / of Education
						of Education	Mathematics	Dr. Bud Hall
						using state	Language Arts	Elem/Sec Dept of Educ
						advisory	Science	Santa Fe, NM 87501
						groups	Social Studies	
						Carver Aware	Districts must provide re- mediation at district lev- el for students failing	
	Legislature	1986	10 - 11	Yes, for 1989-1990	No Limit	State Board	Reading	the proficiency test.
						of Education	English	
						using state	Mathematics	Districts may retain stud- ents for no more than one
						advisory	Science	year in grades K-8 who do not master required skills.
						groups	Social Sci.	
New York	Board of Regents	1979	9	Yes	3 times per State Dept of Education	Mathematics	Contact: Winona Lott	
					1 year		State Edn. Dept.	
			11	Yes	3 times per State Dept of Writing		Albany, NY 12224	
					1 year	Education		Remediation is provided for
								students failing any of the
						The College	Reading	tests.
						Board		
						(purchased)		Testing is required in both
								public and nonpublic
			3 and 6	Check Pts.	————		Reading (CET)	schools.
							Mathematics	
			5	Check Pts.	————		Writing	Competency test requirement
								may be satisfied by taking
								the Regents Examinations in
								English and mathematics.

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	COMMENTS		
						INITIATED BY	ADOPTED	LEVEL(S)
North Carolina	Legislature	1978	10	Yes	4	State Department of Public Instruction	Reading	Contact: William J. Brown, Jr.
						Mathematics	Writing	SDPI
						Language		217 West Jones Street
						outside contractors		Raleigh, NC 27611
						tractors		
								Remediation provided for students who fail the test.
		1983	3, 6, 8	Grade	-----	State Department of Public Instruction	Reading	
				Promotion		Mathematics	Writing	The NC testing program includes testing in grades 1, 2, 3, 6, 8 using the OER objective-referenced science and social studies tasks at grades 3, 6 and 8; end-of-course tests for biology, algebra and history; and the competency test at grade 10.
				Optional		Language		
						NC educators		
North Dakota	None							Contact: Charles Dahmen
								Asst. Dir. Curr & Non
								Dept. of Pub. Instru.
								State Capital
								Bismarck, ND 58505
								Accreditation requires districts to implement elementary and secondary testing programs; grade levels recommended are 2, 5, 7, 9 and 11 using either the SBE and ITED published by SBE or the ITED and TAP published by Riverside.

STATE	INITIATED BY	YEAR	GRADE	GRADUATION	TIMES OUT	REQUIREMENT	DEVELOPED BY	AREAS TESTED	COMMENTS	
									ACCEPTED	LEVEL(S)
Ohio	None									Contact: Mary J. Poston Room 1005 65 South Front Street Columbus, OH 43215
										Pupil performance objectives are to be established at the local level for English composition, mathematics, and reading. Periodic assessment is to be done at the local level, including testing at least once in grades 1-4, grades 5-6, and grades 9-11. Intervention shall be provided according to pupil needs.
Oklahoma	None									Contact: John H. Polks State Superintendent State Dept. of Educ. 2500 North Lincoln Blvd Oklahoma City, OK 73105-4599
										In 1985, the legislature established a state-wide program calling for standarized testing in grades 3, 7, and 10. The Metropolitan Achievement Test, Form M, published by Psychological Corporation has been adopted. Areas tested are reading, language arts, science, mathematics, and social studies.
Oregon	State Board of Education	1974	High Sch	Yes			Local Dist	Speaking Listening Writing Reading Computing Reasoning	Competencies: State requirement that local districts assess student competencies with orally determined devices.	Competencies: State requirement that local districts assess student competencies with orally determined devices.



STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	RETAKE	DEVELOPED BY	AREAS TESTED	CONFERENCE
									CONFERENCE
South Carolina	Legislature	1978	10	Yes	Grade 11-11 (in 1989-90)	IXX and the Grade 12-21	IXX and the State Dept.	Reading Mathematics Writing	Contact: Paul D. Sandifer 1429 Senate Street Columbia, SC 29201
					1, 2, 3, 4 Check Pts.				Remediation is provided for students failing the tests.
					6, 8				
									The Basic Skills Assessment Program is based on 6 reading, 5 writing and 5 mathematics (16 total) objectives common across grade level. At grades 1, 2, 3, 4, and 8, 6 multiple-choice items are used to measure each objective; at grade 10, 10 items per objective are used. For the writing test, students must write a paragraph which is holistically scored using a 4-point rubric. Grade 1 students also take a reading readiness test.
South Dakota	None								Contact: Dianne Knoe Division of Education Kneip Bldg. 700 North Illinois Pierre, SD 57501
									The State Board of Education has established testing policy. The Stanford Achievement Test and Otis-Lennon School Ability Test are administered in grades 4, 8, and 11; the Differential Aptitude Test and the Ohio Vocational Interest Survey are administered in grades 9 - 12.

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	COMMENCE			
						INITIATED BY	ADOPTED	LEVEL(S)	REQUIREMENT
Tennessee	Legislature	1981	9	Yes	5	State Dept.	Language Arts	Contact: Sara Strouse	
						of Education	Mathematics	2150 Mennier Road	
	Governor	1984	3, 6, 8	Check Pts.	—	State Dept.	Reading	Nashville, TN 37210	
						of Education	Mathematics	The grade 9 minimum com-	
								petency test assess-	
			1, 2, 5, 7	Check Pts.	—	Standard Achiev-	Reading	achievement on 50 basic	
						vement Test	Mathematics	skill objectives for high	
								school proficiency.	
						Language			
						Science			
						Social Studies			
						Listening			
		1985	9, 12	Check Pts.	—	Standford	Reading		
						Test of Achiev-	Mathematics		
						ment Skills	English		
							Science		
							Social Sci		
Texas	Legislature	1993	11	Yes	Twice each	IXX Assess-	Reading	Contact: Keith L. Cruse	
					year,	ment Assess.	Mathematics	Div. of Assessment	
					beginning		Writing	Texas Educ. Agency	
					in grade 11			1701 North Congress Ave	
			1, 3, 5,	Check Pts.	—	IXX	Reading	Austin, Texas 78701	
			7, 6, 9			Mathematics	State mandated remediation		
						Writing	for students who do not		
							pass the tests.		
								Exit examination based on	
								18 mathematics, 10 reading,	
								and 4 writing objectives.	
								Objective-referenced mastery	
								tests used at grades 1, 3,	
								5, 7 and 9.	
								Extensive manuals listing	
								objectives and sample test	
								items are provided at each	
								grade level in the areas.	

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	INITIATED BY/ADOPTED	LEVEL(S)	REQUIREMENT	BE RETAKEN	DEVELOPED BY	AREAS TESTED	CONTACTS	
Utah	None												Contact: David E. Wilson State Office of Educ. 250 East 500 Street Salt Lake City, UT 84111
													For state assessment, take random samples of grade 5 & 11 students in mathematics, reading, and language usage using the CTBS; also collect data on academic self-con- cept, attitude toward sch- ool, career awareness, etc.
Vermont	None												Contact: Virgil Mock Chief Curriculum & Instruc. State Dept. of Educ. Montpelier, VT 05602
													Mastery of defined basic competencies is required end of grade 8 effective 1989 - (reading-5, writing- 7, speaking-5, listening-3, mathematics-19, and listen- ing-13). Competencies are assessed at the local level by teachers.
Virginia	Department of Education	1978	10	Yes	5	DK	SES	Reading	Mathematics	Dept of Education P.O. Box 60 Richmond, VA 23216-2040	Contact: Harry L. Smith		
													Initially developed by In- structional Objectives Ex- change & Scholastic Testing See ... materials now prepared by Dept of Educ.
Washington	No Response												

STATE	ACTION	YEAR	GRADE	GRADUATION	TIMES CAN	INITIATED BY	ADOPTED	LEVEL(S)	REQUIREMENT	BE RETAKEN	DEVELOPED BY	AREAS TESTED	COMMENTS
West Virginia	None												I Contact: Dr. Joe E. Shively I State Dept. of Edu. I Capital Complex I Bldg. 6, Room 8-057 I Charleston, WV 25303
													I Have standardized state I testing program using the I CTBS at grades 3, 6, 9 & 11 I and COOP at grades 3 & 9.
													I Writing assessment using I holistic scoring is being I implemented in grades 8 and I 10.
Wisconsin	Legislature	1982	District	District	District	Department of Reading							I Contact: Tom Stefanek, Dir I Bureau for Ach Testing I Dept. of Pub. Instru. I 125 South Webster St. I Madison, WI 53707
			option	Option	Option	Public In- scruction							I Remediation is provided for I students who fail tests.
			within			developed 9							
			grade			tests that							
			spans of			can be used							
			K - 5			at district							
			6 - 8			option: tests							
			9 - 11			from other							
						I sources also							I Students must be assessed
						I can be used.							I at least once at each of
													I the grade levels K - 5, 6 -
													I 8, and 9 - 11. Districts
													I can use items available in
													I a computerized item bank
													I from DPI. The grade 3, 7, I 10 tests have been develop- I ed from this item bank.
													I Assessment is a local op- I tion within state guide- I lines. Tests must reflect
													I district's curriculum: re- I sults can be used for grade I promotion or graduation, or
													I teacher evaluation. Teach- I ers may not be discharged, I disciplined or non-renewed
													I based on test results.

STATE	ACTION IMPLEMENTED BY (ADOPTED)	YEAR	GRADE	GRADUATION	TIMES CAN	DEVELOPED BY	AREAS TESTED	COMMENTS	
								LEVEL(S)	REQUIREMENTS BE MET/ACHIEVED
Wyoming	None								<ul style="list-style-type: none"> <li>  Contact: Alan G. Wheeler</li> <li>  Director</li> <li>  General Programs Unit</li> <li>  State Depart. of Educ.</li> <li>  Hathaway Bldg.</li> <li>  Cheyenne, WY 82002</li> <li> </li> <li> </li> <li>  Based on a 1977 Board of</li> <li>  Education policy, districts</li> <li>  have been required to dev-</li> <li>  elop Minimum Competency</li> <li>  Programs in reading, writ-</li> <li>  ing and computing.</li> <li> </li> <li>  State-wide assessment of</li> <li>  volunteer district in read-</li> <li>  ing and writing in grades</li> <li>  4, 8, and 11 using NAEP</li> <li>  done in 1984; to be repeat-</li> <li>  ed in science, mathematics</li> <li>  and computer in 1986.</li> </ul>

## References

Airasiain, P., Pedulla, J., & Madaus, G. (1978). Policy issues in minimal competency testing and a comparison of implementation models: A report submitted to the subcommittee of the Massachusetts advisory committee. In M. Perkins (1982). Minimum competency testing: What? Why? Why not? Educational Measurement Issues and Practice, 1(4), 6.

Anderson v. Banks, 540 F. Supp. 761 (S.D. Ga. 1982).

Archambault, F. (1979). Remediation in minimum competency testing. Education and Urban Society, 12(1), 31-46.

Arizona State Department of Education. (1985). Arizona State Department of Education: Model program for promotion/retention/graduation. Phoenix: Author.

Biester, T., & Dusewicz, R. (1983). Trends in school improvement: Statewide test results, 1978-1983. Philadelphia: Research for Better Schools.

Bloom, B. (1979). Human characteristics and school learning. New York: McGraw-Hill.

Board of Curators of the University of Missouri v. Horowitz, 435 U.S. 78 (1978).

Board of Educ. of Northport-East Northport Union Free School Dist. v. Ambach, 458 N.Y.S.2d 680 (App. Div. 1982).

Boyer, E. (1983). High school: A report on secondary education in America. New York: Harper & Row.

Brookhart v. Illinois State Bd. of Educ., 697 F.2d 179 (7th Cir. 1983).

Bryant, E., Glaser, E., Hansen, M., & Kirsch, A. (1974).

Associations between educational outcomes and background variables: A review of selected literature. Denver: National Assessment of Educational Progress.

Burket G., & Stewart, J. (1982). Changes in test scores associated with changes in tests (publication brochure). Monterey, CA: CTB/McGraw-Hill.

Cohen, D., & Haney, W. (1980). Minimums, competency testing, and social policy. In R. Jaeger & C. Tittle (Eds.), Minimum competency achievement testing (pp. 5-22). Berkley, CA: McCutchan.

Coleman, J., Campbell, E., Hobson, C., McPartland, J., Mood, A., Weinfield, F., & York, R. (1966). Equality of educational opportunity (SuDocs No. FS-5.238). Washington, DC: U.S. Government Printing Office.

College Entrance Examination Board. (1977). On further examination. New York: Author.

Debra P. v. Turlington, 644 F.2d 397 (5th Cir. 1981).

Debra P. v. Turlington, 564 F. Supp. 177 (M.D. Fla. 1983), aff'd, 730 F.2d 1405 (11th Cir. 1984).

Delaware State Department of Public Instruction. (1984). Delaware educational assessment program: Statewide test results, summary report. Dover: Author.

Edmonds, R. (1979). Some schools work and more can. Social Policy, 9(5), 28-32.

Education Commission of the States. (1984). Current status of state assessment programs. Denver: Author.

Education Commission of the States. Task Force on Education for Economic Growth. (1983). Action for excellence: A comprehensive plan to improve our nation's schools. Denver: Author.

Elford, G. (1977, May). A review of policy issues related to competency testing for high school graduation. Paper presented at the meeting of the New England Educational Research Organization, Manchester, NH. In M. Perkins (1982). Minimum competency testing: What? Why? Why not? Educational Measurement Issues and Practice, 1(4), 6.

Forbes, R. (1982). Functional literacy and writing. In G. Austin & H. Garber (Eds.). The rise and fall of national test scores (pp. 51-82). New York: Academic Press.

Goodlad, J. (1983). A place called school: Prospects for the future. New York: McGraw-Hill.

Gorth, W., & Perkins, M. (1979). A study of minimum competency testing programs. Amherst, MA: National Evaluation Systems.

Goss v. Lopez, 419 U.S. 565 (1975).

Guest, C., Nelson, D., Ellison, R., & Fox, D. (1984). Utah statewide educational assessment general report. Salt Lake City: Utah State Office of Education.

Howell, J. (1978, April). Minimum competency testing (MCT), some remarks. Paper presented at the annual meeting of the American Educational Research Association, Ontario, Canada.

Illinois State Board of Education. (1984). Student achievement in Illinois: An analysis of student progress. Springfield, IL: Author.

Jacobson, R. (1986, May 21). Carnegie Panel asserts rebuilding of education system is needed to preserve U.S. living standards. Chronicle of Higher Education, 32(12), 1, 42.

Lightfoot, S. (1983). The good high school. New York: Basic Books, Inc.

Mackenzie, D. (1983). Research for school improvement: An appraisal of some recent trends. Educational Researcher, 12 (4), 5-17.

Madaus, G. (1981). NIE clarification hearing: The negative team's case. Phi Delta Kappan, 63(2), 92-94.

Marshall, J. (1986, April). Survey of state initiatives in competency testing. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Marshall, J., & Powers, J. (1971). Prediction of class achievement from student and school characteristics. Unpublished manuscript, St. Louis Public Schools, St. Louis.

Maxey, E., Wimpy, L., Ferguson, R., & Hanson, G. (1976). Trends in the academic abilities, background characteristics, and educational and vocational plans of college bound students: 1970-71 to 1974-75. Iowa City, IA: The American College Testing Program.

McCarthy, M., & Cambron-McCabe, N. (1987). Public school law: Teachers' and students' rights (2nd ed.). Boston: Allyn & Bacon.

Michigan State Board of Education. (1985). Michigan educational assessment program handbook. Lansing, MI: Author.

Miller, B. (1978). Minimum competency testing: A report of four regional conferences. In M. Perkins (1982). Minimum competency testing: What? Why? Why not? Educational Measurement Issues and Practice, 1(4), 6.

National Center for Educational Statistics. (1983). School district survey of academic requirements and achievement (Report No. NCES-83-210). Washington, DC: U.S. Government Printing Office.

National Commission on Excellence in Education. United States Department of Education. (1983). A nation at risk: The imperative for educational reform. Washington, DC: U.S. Government Printing Office.

New Hampshire State Board of Education. (1985). A report to the (New Hampshire) state board of education by the commissioner's advisory committee on statewide testing. Concord: Author.

Ohio Department of Education. (1983). Elementary and secondary schools minimum standards. Columbus: Author.

Perkins, M. (1982). Minimum competency testing: What? Why? Why not? Educational Measurement Issues and Practice, 1(4), 5-9, 26.

Pipho, C., & Hadley, C. (1984). State activity: Minimum competency testing as of December 1984. Clearinghouse Notes. Denver: Education Commission of the States.

Pipho, C., & Hadley, C. (1985). State activity: Minimum competency testing as of January 1985. Clearinghouse Notes. Denver: Education Commission of the States.

Regents of the University of Michigan v. Ewing, 106 S.Ct. 507  
(1985).

Serow, R. (1983, February). Sorting at the bottom: A sociological analysis of minimum competency testing. Paper presented at the annual meeting of the Eastern Educational Research Association, Baltimore.

Serow, R., & Davies, J. (1982). Resources and outcomes of minimum competency testing as measures of equality of educational opportunity. American Educational Research Journal, 19(4), 529-539.

Serow, R., Davies, J., & Parramore, B. (1982). Performance gains in a competency test program. Educational Evaluation and Policy Analysis, 4(4), 535-542.

Serow, R., & O'Brien, K. (1983). Performance of handicapped students in a competency test program. Journal of Special Education, 17(2), 149-155.

Shepard, L. (1980). Technical issues in minimum competency testing. In D. Berliner (Ed.). Review of Research in Education Vol. 8, (pp 30-82). Washington, DC: American Educational Research Association.

Trubek, J., & Patterson, J. (1986). Florida summary. Unpublished paper, University of Wisconsin-Madison, Center for Policy Research in Education, Madison, WI.

Utah State Board of Education. (1984). The elementary and secondary school program of studies and high school graduation requirements. Salt Lake City: Author.

Vermont Department of Education. (1985). State of Vermont basic competencies. Montpelier: Author.

Vermont Department of Education. (undated). Vermont graduation requirements grades 9-12. Montpelier: Author.

Wyoming Department of Education. (1982). Handbook for establishing minimum competency programs in Wyoming schools. Cheyenne: Author.

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